## Remarks/Arguments

Rejection of Claims 1, 2, 6, 8, 9, 15-20 and 22-24 under 35 U.S.C. §103(a)

Claims 1, 2, 6, 8, 9, 15-20 and 22-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over DE 19917665 A1 (Glonner et al.) in view of US 6,482,127 (Katou). Applicants respectfully traverse the rejection and request reconsideration.

Claims 1 and 22 have been amended to recite that the crankshaft starter generator is arranged directly between the drive unit and the gearbox and separated by two clutches, specifically, the engine clutch and the gearbox clutch. Glonner et al. does not disclose this arrangement. Glonner et al. does not teach that either electric motors 4 or 6 are arranged directly between a drive unit and a gearbox. Also, Katou does not teach the arrangement of an electric motor positioned directly between a drive unit and a gearbox and separated by an engine clutch and a gearbox clutch. Therefore, all the elements of the Claims 1 and 22 have not been taught or suggested by the combination of Glonner et al. and Katou, and a *prima facie* case of obviousness has not been proved.

Furthermore, the arrangement of electric motors 4 and 6 in the system taught by Glonner et al. are inseparable and requires two electric motors (4,6) to function properly. Elimination of either electric motor would render the system inoperable. Since the design is a parallel hybrid or series hybrid, which indicates the need for multiple electric motors, removing electric motor 4 or motor 6 would render the series or parallel circuit inoperable. If the intended modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *See In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984); *see also* MPEP 2143.01. If electric motor 4 is removed composite torque summation is not achieved and worse the circuit would need to be reengineered to enable the hybrid drive to function. Consequently, the modification necessary to support the obviousness rejection would render the hybrid drive taught by Glonner et al. unsatisfactory for its intended purpose.

Furthermore, the principle of operation of Glonner et al. is that it uses two electric motors in series or in parallel for two purposes: 1) to generate increased torque capacity or 2) to have

two separate strength electric motors to allow one electric motor to be devoted to running a plurality of ancillary functions, while the first motor is devoted to the drivetrain, which increases fuel economy. The modification proposed by the Examiner would require the elimination of one of the electric motors which would change the principle of operation of Glonner et al. If a proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *See In re Ratti*, 270 F.2d 810 (CCPA 1959); *see also* MPEP 2143.01. The modification of Glonner et al. would require the elimination of one of the electric motors, altering the circuit, which would change the principle of operation of the invention disclosed in Glonner et al., i.e., it would no longer be a dual electric motor hybrid drive with two motors in series or in parallel. Therefore, the modification of Glonner et al. needed to arrive at the invention recited in Claims 1 and 22 would lead to the principle of operation of the device taught in Glonner et al. to be changed and a *prima facie* case of obviousness can not be grounded in such a modification. Therefore, Claims 1 and 22 are nonobvious.

Since the present claims do not recite a drive that utilizes multiple electric motors, and because modifying the hybrid drive taught by Glonner et al. to remove an electric motor would render it unsatisfactory for its intended purpose and/or change the principle of operation of the invention taught in Glonner et al., Glonner et al. can not be modified as proposed to render Claims 1 and 22 obvious. Moreover, the combination of Glonner et al. and Katou fail to teach or suggest a crankshaft starter generator arranged directly between the drive unit and the gearbox and separated by two clutches. Therefore, a *prima facie* case of obviousness has not been made out and Claims 1 and 22 recite allowable subject matter.

Claims 2, 6, 8, 9, 15-19 and 20, dependent on allowable Claim 1, are also allowable due to their dependency on Claim 1. Claims 23-24, dependent on allowable Claim 22, are also allowable due to their dependency on Claim 22.

**Claim 8**

Glonner et al. is not an enabling reference for the limitation recited in Claim 8. The Examiner has suggested that Glonner et al. discloses an engine clutch that is turned on by a

control unit when an engine start is required, but that is not explicitly or inherently taught by Glonner et al. Moreover, Claim 8 states that "the engine clutch . . . is subject to a logic control depending on a selected driving mode." Generically interpreting claim 8 to be merely reciting an engine clutch that is turned on by a control unit when an engine start is required overlooks significant claim limitations recited in the claim. The logic control is dependent on not just turning the vehicle on, but on a particularly driving mode being selected. The logic unit and clutch interact and adapt to the driving mode selected. Glonner et al. does not teach or suggest this capability of adapting to different driving modes. This limitation is not taught by Glonner et al., or the combination of Glonner et al. and Katou. Therefore, Claim 8 is also patentable for this reason as well.

**Claim 20**

Glonner et al. has one paragraph that states that motor 2 and input shaft 5 are coupled by clutch 8 when the difference between the rotational speeds of motor 2 and input shaft 5 is zero, but there is no indication how this is accomplished. Claim 20, does not recite any comparison between the rotational speeds of motor 2 and input shaft 5, but recites that "gearbox input revolution number is acquired by means of a sensor attached to the gearbox." Glonner et al., and the combination of Glonner et al. and Katou have no teaching or suggestion of acquiring a gearbox revolution number, or using a sensor attached to the gearbox to get that value. Therefore, all the limitations of Claim 20 are not taught or suggested by the combination of Glonner et al. and Katou and Claim 20 is patentable for this reason as well.

**Rejection of Claims 3, 4 and 7 under 35 USC §103(a)**

Claims 3, 4 and 7 were rejected under 35 USC §103(a) as being unpatentable over Glonner et al. in view of Katou, and in further view of Hohn. Applicants respectfully request reconsideration and submit that Claims 3, 4 and 7 are patentable. It has been shown *supra* that the combination of Glonner et al. and Katou do not teach or suggest all the limitations of Claim 1. Hohn fails to cure the defects of the combination of Glonner et al. and Katou and therefore the

combination of Glonner et al., Katou and Hohn also fails to teach or suggest all the limitations of Claim1. Therefore, Claims 3, 4 and 7 are patentable due to their dependency on Claim 1.

Objection to Claims 1, 5, 12, 13 and 21

The Examiner objected to Claims 5, 10, 12, 13 and 21 for being dependent on rejected base claims, but stated that those claims would be allowable if rewritten in independent form reciting all the limitations of the base claim and intervening claims. Applicants has taken the content of Claims 5 and amended it to include all the limitations of the base claims and intervening claims on which they depend to construct new Claims 25. Similarly, the content of Claims 10, 11, 12, 13 and 21 have been transferred to Claims 26-29 and made dependent on allowable Claim 25. Applicants submit that Claims 25-29 recite allowable subject matter, as they recite subject matter that the Examiner previously acknowledged as allowable, and request that these claims be passed into allowance.

**Conclusion**

Applicants respectfully submit that all pending claims are now in condition for allowance, which action is courteously requested.

Respectfully submitted,

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